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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,187	09/06/2005	Dirk Ullmann	10191/3767	8295
26646	7590	11/29/2006	EXAMINER	
KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			KWOK, HELEN C	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/523,187	ULLMANN, DIRK	
	Examiner	Art Unit	
	Helen C. Kwok	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/28/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claims 8-9 are objected to because of the following informalities. Appropriate correction is required.

In claim 8, line 7, the word "element" should be changed to – elements --.

In claim 9, line 5, the word "element" should be changed to – elements --.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 7 and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,140,155 (Carome).

With regards to claims 7 and 10-12, Carome discloses a sensor comprising, as illustrated in Figures 2 and 10, a substrate; at least one spring device; at least one seismic mass connected to the spring device. Furthermore, the spring device includes

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an elongated flexural spring element decreasing in thickness (i.e. pyramidally) from a first end to a second end having a logarithmic profile for a component characteristic curve. (See, column 5, line 63 to column 6, line 8).

5. Claims 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,084,257 (Petersen et al.).

With regards to claims 7-8, Petersen et al. discloses a semiconductor sensor comprising, as illustrated in Figure 1, a substrate; at least one spring device; at least one seismic mass connected to the spring device wherein the spring device includes two flexural spring elements. (See, column 3, line 24 to column 4, line 11).

6. Claims 7-8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,005,275 (Shinogi et al.).

With regards to claims 7-8 and 10, Shinogi et al. discloses a semiconductor accelerometer comprising, as illustrated in Figures 58-59B and 64-66, a substrate; at least one spring device; at least one seismic mass connected to the spring device wherein the spring device includes two flexural spring elements decreasing in thickness. (See, column 18, line 31 to column 19, line 35).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 9 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,005,275 (Shinogi et al.) in view of either U.S. Patent 4,244,225 (Greenwood) or U.S. Patent 5,140,155 (Carome).

With regards to claim 9, Shinogi et al. does not disclose the flexural spring elements of unequal length. Greenwood discloses an acceleration sensor comprising, as illustrated in Figures 2-3, flexural spring elements 22,23,24 of different lengths. (See, column 2, lines 24-42). It would have been obvious to a person of ordinary skills in the art at the time of invention to have readily recognize the advantages and desirability of constructing the flexural spring elements to have different lengths as suggested by Greenwood to the apparatus of Shinogi et al. such that each of the flexural spring elements are adapted to respond to a periodic force such that each has a different vibrational frequency. (See, column 1, lines 37-44 of Greenwood).

With regards to claims 11-12, Shinogi et al. does not disclose the spring device decreases pyramidally and having a logarithmic profile for a component characteristic curve. Carome discloses a sensor having a spring device including an elongated flexural spring element decreasing in thickness (i.e. pyramidally) from a first end to a second end having a logarithmic profile for a component characteristic curve. (See, column 5, line 63 to column 6, line 8). It would have been obvious to an artisan in the art at the time of invention to have readily recognize the advantages and desirability of

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fabricating the spring device decreasing pyramidally and having a logarithmic profile for a component characteristic curve such that the linearity or non-linearity of the relationship between the strength of the sensed condition and the output is selectively adjusted. (See, column 6, lines 4-8 of Carome).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The references cited are related to sensor having a cantilever connected to a mass.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen C. Kwok whose telephone number is (571) 272-2197. The examiner can normally be reached on 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

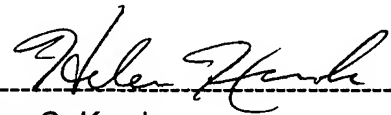
For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in cursive script, appearing to read "Helen C. Kwok", written over a horizontal dashed line.

Helen C. Kwok
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hck

November 22, 2006